

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 04 April 2001 (04.04.01)	
International application No. PCT/ZA00/00027	Applicant's or agent's file reference
International filing date (day/month/year) 21 February 2000 (21.02.00)	Priority date (day/month/year) 31 May 1999 (31.05.99)
Applicant OWEN, David, Llewellyn	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
 18 December 2000 (18.12.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer R. Forax Telephone No.: (41-22) 338.83.38
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STATEMENT UNDER ARTICLE 19

It is considered that no impact on the description requiring its amendment results.

AD CLAIM 21 (AMENDED) : -

The claim is characterized by a cover for an exposed portion of the metal tensile component. This is shown in figures 1, 3 and 5 as item 9 and described with reference thereto in the drawing description. Its importance is in preventing wear to the metal tensile component which is prone to wear by the material being screened.

The prior art describes a metal tensile component in the form of a bolt and nut (Auslegeschrift 27 54 044 e.g. at column 4 line 8 " Befestigungsschrauben 17" figure 4 but not a cover for it. Other art describes polymeric fasteners to combat the wear problem for which reason metal tensile fasteners were usually avoided.

AD CLAIM 22 (AMENDED) : -

This claim adds further distinguishing feature related to protection of the metal tensile component, the fit of the skirt into a recess in the adjacent panel improves the seal against ingress of wearing material.

AD CLAIM 28 (AMENDED) : -

This claim improperly referred to "the tensile component" but there was no antecedent for a tensile component recited in the claim, hence it is replaced with "a fastener for screening panels". The characterising integers of the claim are the strip presenting neither top nor bottom web but spaced apart platforms. This is not found in the art.

- Replaced by art. 19 Amendment*
- 15) A fastening means as claimed in any one of claims 1 to 14, provided together with a screening panel which is provided with co-acting formations for co-acting with the fastener.
 - 16) A fastening means and screening panel as claimed in claim 15, in which that part of the formation of the panel for co-acting with the ledge of the fastener is located at an intermediate position in the depth of the panel.
 - 17) A fastening means and screening panel as claimed in either one of claims 15 or 16, in which the co-acting formations in the panel are provided at the edges of the panel.
 - 18) A fastening means and screening panel as claimed in any one of claims 15 to 17, in which the co-acting formations include also a portion for co-acting with the skirt, which formations allow the skirt to enter partially into the depth of the panel.
 - 19) A fastening means and screening panel as herein generally described.
 - 20) A fastening means and screening panel as herein specifically described with reference to the drawings and as illustrated.
 - 21) A fastener for screening panels, which fastener comprises a combination structure including a metal tensile component and a polymeric holding component which includes a ledge for holding a panel.
 - 22) A fastener for screening panels, as claimed in claim 21, in which the metal tensile component comprises a bolt and nut.
 - 23) A fastener for screening panels, as claimed in either one of claims 21 or 22, which further includes a cover for an exposed portion of the metal tensile component.

- 24) A fastener for screening panels, as claimed in claim 23, in which the cover has a skirt providing an improved barrier to ingress of material.
- 25) A fastener for screening panels, as claimed in any one of claims 21 to 24, in which the fastener is provided in combination with a toggle or butterfly near an end of the metal tensile component, for engaging a blind hole in a screening frame.
- 26) A fastener for screening panels, as claimed in claim 25, in which the toggle comprises a strip or plate with the tensile member passing through an offset hole, the plate narrow enough to be passed through a hole in the screening frame member when misaligned, but long enough to be held when aligned.
- 27) A fastener for screening panels, as claimed in either one of claims 25 or 26, in which the polymeric holding component is provided with a further step which fits into an enlarged hole provided in the screen frame.
- 28) A fastener for screening panels, as herein generally described.
- 29) A fastener for screening panels, as herein specifically described with reference to figures 1 to 8 of the drawings and as illustrated.
- 30) A stringer for screening means, for use as a joist in a screen frame, the stringer comprising a strip of cross section having a narrow width and depth sufficient to carry vertical reciprocating loads, presenting neither a top nor a bottom web, but a plurality of spaced apart platforms, each platform presenting a fastening formation which receives the tensile component, for securing a panel and a support area around or adjacent the fastening formation for supporting the panel.

- 31) A stringer as claimed in claim 30, which comprises a disc having a hole in its centre, the hole providing a fastening formation and the surround of the disc a support area for the panel around the hole.
- 32) A stringer as claimed in claim 31, in which the centre of the hole is immediately above the centroid of the section of the stringer.
- 33) A stringer as claimed in either one of claims 31 or 32, in which the stringer is provided with a recess immediately below the platform.
- 34) A stringer as claimed in any one of claims 30 to 33, in which the upper support surface of the platform is flush with the upper surfaces of the stringer.
- 35) A stringer as herein generally described.
- 36) A stringer as herein specifically described with reference to figures 9 to 11 of the drawings and as illustrated.



— With amended claims and statement.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

PATENT COOPERATION TREATY

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REC'D 29 AUG 2001

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference AD/em	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/ZA00/00027	International filing date (day/month/year) 21/02/2000	Priority date (day/month/year) 31/05/1999
International Patent Classification (IPC) or national classification and IPC F16B5/00		
Applicant OWEN, David Llewellyn		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 5 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 18/12/2000	Date of completion of this report 27.08.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Hunter, E Telephone No. +49 89 2399 2941



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/ZA00/00027

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-9 as originally filed

Claims, No.:

1-29 as received on 26/05/2001 with letter of 16/05/2001

Drawings, sheets:

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☒ the claims, Nos.: 1-36 original

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/ZA00/00027

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-29
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-29
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-29
	No:	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
se separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/ZA00/00027

V

The combination of features set out in the respective independent claims 1 or 25 is not disclosed in any one of the prior art documents specified in the search report, nor does the disclosure of these documents, taken either together or separately, lead to the invention.

VII

Reference signs in parentheses are not present in the claims, Rule 6.2(b) PCT.

The most relevant documents of the search report are not identified and evaluated in the description, Rule 5.1(a)(ii).

VIII

Claims 7,8,10,11,16,17,23,24,28,29 referring to the description and drawings do not comply with Rule 6.2a PCT.

In claims 1 and 25 the reference apparently should be to the longitudinal axis passing through the centroid.

Article 19
is considered
before the
art. 34.
WO 00/73669

PCT/ZA/00/00027

THE CLAIMS

- 1) A fastening means for screening panels, which fastening means includes: fasteners, each fastener as a combination structure having a metal bolt as a tensile component and a polymeric holding component which has a ledge for holding down a panel; and a stringer for use as a joist in a screen frame, the stringer comprising a strip of cross section having a narrow width and depth sufficient to carry vertical reciprocating loads, presenting neither a top nor a bottom web, but a plurality of spaced apart platforms, each platform presenting a fastening formation which receives the tensile component, for securing a panel and a support area around or adjacent the fastening formation for supporting the panel, characterised in that there are a plurality of spaced apart separate fasteners and in that each platform is in the form of a disc having a hole in its centre and the hole is immediately above the centroid of the stringer.
- 2) A fastening means as claimed in claim 1, which further includes a cover for an exposed portion of the metal tensile component.
- 3) A fastening means as claimed in claim 2, in which the cover has a skirt providing an improved barrier to ingress of material.
- 4) A fastening means as claimed in any one of claims 1 to 3, in which the fastener is provided in combination with a toggle or butterfly near an end of the metal tensile component, for engaging a blind hole in a screening frame.
- 5) A fastening means as claimed in claim 4, in which the toggle comprises a strip or plate with the tensile member passing through an offset hole,

AMENDED SHEET (ARTICLE 34)

the plate narrow enough to be passed through a hole in the screening fram member when misaligned, but long enough to be held when aligned.

- 6) A fastening means as claimed in either one of claims 4 or 5, in which the polymeric holding component is provided with a further step which fits into an enlarged hole provided in the screen frame.
- 7) A fastening means for screening panels, which includes a fastener as herein generally described.
- 8) A fastening means for screening panels, which includes a fastener as herein specifically described with reference to figures 1 to 7 of the drawings and as illustrated.
- 9) A fastening means as claimed in any one of claims 1 to 8, in which the upper support surface of the platform is flush with the upper surface of the stringer.
- 10) A fastening means for screening panels, which includes a stringer as herein generally described.
- 11) A fastening means for screening panels, which includes a stringer as herein specifically described with reference to figures 9 to 11 of the drawings.

AMENDED CLAIMS

[received by the International Bureau on 29 September 2000 (29.09.00);
original claims 21 – 36 replaced by new claims 21 – 34; remaining claims
unchanged (3 pages)]

AMENDED SHEET (ARTICLE 34)

- 12) A fastening means as claimed in any one of claims 1 to 11, provided together with a screening panel which is provided with co-acting formations for co-acting with the fastener.
- 13) A fastening means and screening panel as claimed in claim 12, in which that part of the formation of the panel for co-acting with the ledge of the fastener is located at an intermediate position in the depth of the panel.
- 14) A fastening means and screening panel as claimed in either one of claims 12 or 13, in which the co-acting formations in the panel are provided at the edges of the panel.
- 15) A fastening means and screening panel as claimed in any one of claims 12 to 14, in which the co-acting formations include also a portion for co-acting with the skirt, which formations allow the skirt to enter partially into the depth of the panel.
- 16) A fastening means and screening panel as herein generally described.
- 17) A fastening means and screening panel as herein specifically described with reference to the drawings and as illustrated.
- 18) A fastener for screening panels fastening means, as claimed in any one of claims 1 to 17, which fastener comprises a combination structure including a metal tensile component in the form of a bolt and nut and a concentric polymeric holding component which includes a ledge for holding a panel, characterized in that it further includes a cover for an exposed portion of the metal tensile component.
- 19) A fastener for screening panels, as claimed in claim 18, in which the cover has a skirt which fits into a coacting recess in the edges of the panels providing an improved barrier to ingress of material.

AMENDED SHEET (ARTICLE 34)

- 20) A fastener for screening panels, as claimed in either one of claims 18 or 19, in which the fastener is provided in combination with a toggle or butterfly near an end of the metal tensile component, for engaging a blind hole in a screening frame.
- 21) A fastener for screening panels, as claimed in claim 20, in which the toggle comprises a strip or plate with the tensile member passing through an offset hole, the plate narrow enough to be passed through a hole in the screening frame member when misaligned, but long enough to be held when aligned.
- 22) A fastener for screening panels, as claimed in either one of claims 20 or 21, in which the polymeric holding component is provided with a further step which fits into an enlarged hole provided in the screen frame.
- 23) A fastener for screening panels, as herein generally described.
- 24) A fastener for screening panels, as herein specifically described with reference to figures 1 to 8 of the drawings and as illustrated.
- 25) A stringer for screening means, for use as a joist in a screen frame, the stringer comprising a strip of cross section having a narrow width and depth sufficient to carry vertical reciprocating loads, presenting neither a top nor a bottom web, but a plurality of spaced apart platforms, each platform presenting a fastening formation which receives a fastener for screening panels, for securing a panel and a support area around or adjacent the fastening formation for supporting the panel which comprises a disc having a hole in its centre, the hole providing a fastening formation and the surround of the disc a support area for the panel around the hole in which the centre of the hole is immediately above the centroid of the section of the stringer.

AMENDED SHEET (ARTICLE 34)

- 26) A stringer as claimed in claim 25, in which the stringer is provided with a recess immediately below the platform.
- 27) A stringer as claimed in either one of claims 25 or 26, in which the upper support surface of the platform is flush with the upper surfaces of the stringer.
- 28) A stringer as herein generally described.
- 29) A stringer as herein specifically described with reference to figures 9 to 11 of the drawings and as illustrated.

AMENDED SHEET (ARTICLE 34)

PATENT COOPERATION TREATY

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER ACTION <small>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</small>	
International application No. PCT/ZA 00/ 00027	International filing date (day/month/year) 21/02/2000	(Earliest) Priority Date (day/month/year) 31/05/1999
Applicant OWEN, David Llewellen		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of Invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

1+11

☐ as suggested by the applicant.

☐ None of the figures.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/ZA 00/00027

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The abstract is modified as follows:

line 1: after "means" insert "(1)", "panels" "(6,7)" after "screen" "(8)";
line 3: after "bolt" insert "(2)", "nut" "(3)" after "component" "(4)";
line 4: after "cover" insert "(9)";
line 5: after "stringer" insert "(31)";
line 6: after "discs" insert "(35)";
line 7: after "hole" insert "(36)";
line 8: after "recess" insert "(38)";
line 9: after "toggle" insert "(14)".

INTERNATIONAL SEARCH REPORT

International Application No

PCT/ZA 00/00027

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16B5/00 B07B1/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16B B07B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 769 241 A (WOODGATE RAYMOND MAXWELL) 23 June 1998 (1998-06-23) column 1, line 4 - line 10 column 5, line 21 - line 47; figures 1-4 ---	21-24, 28,29
X	DE 27 54 044 B (KINKER) 19 April 1979 (1979-04-19) column 3, line 13 - line 20 column 3, line 40 -column 4, line 15; figures 4,5 ---	21-23, 28,29
X	EP 0 567 361 A (GIRON HOLDING) 27 October 1993 (1993-10-27) column 4, line 27 -column 5, line 16; figures 3,4 --- -/--	21,23, 28,29

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

16 June 2000

Date of mailing of the international search report

27/06/2000

Name and mailing address of the ISA

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Authorized officer

Martin, C

INTERNATIONAL SEARCH REPORT

International Application No

PCT/ZA 00/00027

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 243 500 A (INST TEKH KIB I ROBOTIKA) 4 November 1987 (1987-11-04) page 6, line 6 -page 8, line 15; figures 1-6 ----	30,35,36
A	DE 42 25 173 A (LUDWIG KRIEGER DRAHT UND KUNST) 4 February 1993 (1993-02-04) column 4, line 53 -column 5, line 2 column 5, line 26 - line 30; figure 1 ----	1,21,30
A	GB 2 092 917 A (BBA GROUP LTD) 25 August 1982 (1982-08-25) page 1, line 54 - line 81 page 3, line 69 - line 102; figures 3,7 -----	1,21,30

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/ZA 00/00027

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5769241	A	23-06-1998	AU 700843 B AU 3435295 A	14-01-1999 02-05-1996
DE 2754044	B	19-04-1979	WO 7900341 A EP 0007380 A	14-06-1979 06-02-1980
EP 0567361	A	27-10-1993	FR 2690489 A AT 154260 T DE 69311434 D DE 69311434 T ES 2104089 T	29-10-1993 15-06-1997 17-07-1997 29-01-1998 01-10-1997
EP 0243500	A	04-11-1987	BG 41855 A WO 8605559 A HU 199947 B SU 1569452 A US 4990023 A	15-09-1987 25-09-1986 28-03-1990 07-06-1990 05-02-1991
DE 4225173	A	04-02-1993	DE 9109466 U	12-03-1992
GB 2092917	A	25-08-1982	AU 553142 B AU 7964582 A	03-07-1986 19-08-1982